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Applicant:

Dovek et al.

Assignee:

Maxtor Corporation

Title:

FLUX-GUIDED MAGNETORESISTIVE HEAD USING A

PERPENDICULAR RECORDING MEDIA

Serial No.:

09/067,795

Filed:

April 28, 1998

Examiner:

Letscher, G.

Group Art Unit:

2652

Atty. Docket No.:

3123-276

ASSISTANT COMMISSIONER FOR PATENTS Washington, D.C. 20231

REPLY (37 C.F.R. § 1.193)

This Reply is filed in response to the Examiner's Answer dated May 22, 2001. This paper is submitted in triplicate.

VII. GROUPING OF CLAIMS

In the Supplemental Appeal Brief filed on March 2, 2001, the Grouping of Claims is set forth on page 5. For the first issue the claims are grouped into groups (i) to (xv), for the second issue the claims are grouped into groups (i) to (xvi), and for the third issue claim 55 is the sole claim. The Arguments set forth on pages 6-22 discuss why the various claim groupings include patentable distinctions over the art of record and are separately patentable. Accordingly, the Supplemental Appeal Brief complies with the claim grouping requirements under 37 C.F.R. § 1.192(c)(7).

The Examiner's Answer disregards the claim grouping and asserts that all the claims stand or fall together:

The rejection of claims 1-60 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

In sustaining this position, the Examiner employs Form Paragraph 12.55.01 in M.P.E.P § 1208. Form Paragraph 12.55.01 and the accompanying Examiner Note are as follows:

 \P 12.55.01 No Statement and Reasons in Brief That Claims Do Not Stand or Fall Together

The rejection of claims [1] stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

Examiner Note:

- 1. Use this paragraph for each grouping of claims (i.e., ground of rejection which appellant contests) wherein the brief includes neither a statement that a grouping of claims does not stand or fall together nor reasons in support thereof.
- 2. If the brief includes a statement that a grouping of claims does not stand or fall together but does not provide reasons, as set forth in 37 CFR 1.92(c)(7), notify appellant of the non-compliance using form paragraphs 12.69, 12.60.01 and 12.78.

As Form Paragraph 12.55.01 and the accompanying Examiner Note make clear, the claims stand or fall together only if the brief includes neither a statement that a grouping of claims does not stand or fall together nor supporting reasons. On the other hand, if the brief contains a statement that a grouping of claims do not stand or fall together and the Examiner believes supporting reasons and absent, then the Examiner can notify the appellant that the brief is non-compliant, thereby providing the appellant the opportunity to revise the brief or petition for withdrawal of the non-compliance requirement.

The Supplemental Appeal Brief clearly contains a statement that the claims do not stand or fall together. Therefore, the Examiner's attempt to void the claim grouping and deem that claims 1-60 stand and fall together under the guise of Form Paragraph 12.55.01 flagrantly disregards the procedures set forth in the M.P.E.P. Applicant has properly grouped the claims for consideration by the Board. Unfortunately, rather than address the numerous features set forth in the claim groups on the merits, the Examiner has attempted to brush them aside through procedural shenanigans. As a result, the Examiner simply has no answer to first issue groups (ii) to (xv) or second issue groups (ii) to (xvi).

VIII. ARGUMENTS

A. Section 102 Rejections

With regards to the Section 102 rejections (first issue, claim group (i)), the Examiner maintains that *Tanaka et al.* shows the combination of the perpendicular recording media and flux-guided (yoked) MR head, the captioned-application describes this combination as producing a readback signal with a Lorentzian-type pulse shape, *Tanaka et al.* must also produce a readback signal with a Lorentzian-type pulse shape, and *Tanaka et al.* inherently contains circuitry for receiving signals from the MR element which were generated by its interaction with the perpendicular recording medium.

Even if one presumes arguendo that these statements are correct, Tanaka et al. fails to teach or suggest that the circuitry that receives the readback pulse can "detect said substantially Lorentzian pulse shape" (claim 1) or "detect that said readback pulse has said substantially Lorentzian pulse shape" (claim 17) or include "a detector designed to detect Lorentzian pulse shapes" (claim 30). Instead, Tanaka et al. suggests that the circuitry is designed to detect a readback pulse that resembles a sine wave. Therefore, the Examiner continues to ignore critical claim elements that distinguish over Tanaka et al.

Applicant offers the following analogy. Suppose that cars travelling over 90 miles per hour inherently generate a Lorentzian pulse shape at a frequency of 900 MHz. Further suppose that inventor Jones discovers this phenomena and invents a radar detector that detects when cars exceed 90 miles per hour in response to the Lorentzian pulse shape at 900 MHz. Inventor Jones would not be able to patent cars that generate the Lorentzian pulse shape at 900 MHz since this would be prior art. However, inventor Jones would be able to patent the radar detector.

Applicant has carefully crafted independent claims 1, 17 and 30 to require more than merely a combination of the perpendicular recording media and flux-guided (yoked) MR head. These claims also include detection circuitry based on Applicant's discovery that *Tanaka et al.* fails to teach or suggest (and in fact teaches away from).

Finally, according to M.P.E.P § 1208, all examiner's answers must comply with the following guidelines:

(A) REQUIREMENTS FOR EXAMINER'S ANSWER. The examiner's answer is required to include, under appropriate headings, in the order indicated, the following items:

(10)(c) For each rejection under 35 U.S.C. 102, the examiner's answer, or single prior action, shall explain why the rejected claims are anticipated or not patentable under 35 U.S.C. 102, pointing out where all of the specific limitations recited in the rejected claims are found in the prior art relied upon in the rejection.

The Examiner has not even attempted to explain how *Tanaka et al.* discloses the claimed detection circuitry.

B. Section 103 Rejections

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With regards to the Section 103 rejections (second issue, claim group (i)), the Examiner contents that it would have been obvious to use the head of *Hesterman et al.* to read information for perpendicular recording media, the readback pulse would have a substantially Lorentzian pulse shape, and therefore the claims are unpatentable.

Hesterman et al. fails to teach or suggest that the head is designed to operate with a perpendicular recording medium. In view of the magnetic shunt across the write gap, it is especially unclear how the perpendicular recording flux needed to write to the perpendicular recording media would be achieved.

Moreover, neither *Hesterman et al.* nor *Hamilton*, alone or in combination, teach, suggest, or even remotely hint that a yoked MR read element produces readback pulses with substantially Lorentzian pulse shapes in response to perpendicular magnetic storage transitions in a storage media, much less a magnetic storage device with circuitry adapted for receiving and detecting such pulses from a yoked MR read element that reads from a perpendicular recording medium.

The Examiner's position strikes Applicant as a textbook example of hindsight reconstruction using the present invention as a blueprint.

X. MISCELLANOUS

As minor matters, Applicant notes that the last name of the undersigned attorney is "Sigmond" (not "Sigmund"). Furthermore, Applicant has submitted multiple requests to change the correspondence address to the undersigned attorney at Maxtor Corporation, as apparently acknowledged on page 6 of the Examiner's Answer, however the Examiner's Answer and other written correspondence is still being sent to the Sheridan Ross law firm. Applicant would appreciate having this simple request fulfilled.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on June 1, 2001.

David M. Sigmond

5,31,01

Attorney for Applicant

Date of Signature

Respectfully submitted,

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- 1 52. The magnetic storage device, as claimed in Claim 48, wherein said first,
- 2 second and third pole pieces are part of an air bearing surface that floats above said

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- 3 magnetic storage media on a small cushion of air during read and write operations.
- 1 53. The magnetic storage device, as claimed in Claim 48, wherein said first,
- 2 second and third pole pieces contact said magnetic storage media during read and write
- 3 operations.
- 1 54. The magnetic storage device, as claimed in Claim 48, wherein said first,
- 2 second and third pole pieces contact a lubricant on a top surface of said magnetic storage
- 3 media during read and write operations.
- 1 55. The magnetic storage device, as claimed in Claim 48, wherein said head
- 2 includes write coils disposed between said first and third pole pieces but not between said
- 3 first and second pole pieces.
- 1 56. The magnetic storage device, as claimed in Claim 48, wherein said head
- 2 includes write coils disposed between said first and second pole pieces.
- 1 57. The magnetic storage device, as claimed in Claim 30, wherein said yoke
- 2 includes a write flux guide that defines a write gap and a read flux guide that defines a
- 3 read gap and is separate from said write flux guide.
- 1 58. The magnetic storage device, as claimed in Claim 30, wherein said
- 2 magnetoresistive read element is positioned within said write element.
- 1 59. The magnetic storage device, as claimed in Claim 30, wherein said
- 2 magnetic storage device is a tape drive.

- 1 60. The magnetic storage device, as claimed in Claim 30, wherein said
- 2 magnetic storage device is a disk drive.